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Development of lesson plans by the lesson study approach for the 6th grade students in social study subject based on open approach innovation

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Abstract

The purpose of this research was to : 1) develop lesson plans 2) develop the students thinking skills 3) study the students' opinions. This research is experimental with target group. The instruments were: 1) 11 Lesson plans 2) an observation form 3) an achievement test with an emphasis on thinking skills; 4) Student questionnaire. The one experimental group design was used with subject. Mean, percentage, and effectiveness index were used to analyze the collected data. **Finding** : 1) Have Lesson plans 2) Over 80 % of the students passed the criteria in the achievement test with an average score of 81.95%. 3) The score of students' satisfaction was at the highest level ($\bar{X} = 4.56$).

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1. Introduction

Education is the heart of national development and is vital for society. The national education reform under the National Education Act 1999 emphasized learner-centered lessons. Learning processes should be beneficial to learners so that they would develop to their fullest abilities. Students should possess skills for knowledge acquisition from various sources and be able to apply the learning strategies in real life (The Office of National Education Commission, 2002). The major element of the primary-level social study subject involves solution of social and life problems. Human needs and troubles are discussed in order that students will live a happy life. The lessons are

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therefore associated to real life for learners to apply in their living as appropriate to the environment (Sumon Amornwiwat, 1984).

Hence, the teaching of social studies must be in line with the education reform policy in which an emphasis is on learner-centered approach and thinking skills necessary for living in society. Learners should be trained to “be able to think, to act, and to solve problems” and become forever happy in the changing society (Ministry of Education, 2002). The researchers were therefore interested in studying the development of lesson study which is used in schools as a developmental basis. The lesson study approach is widely applied in many countries including Japan, where teachers meet regularly to develop teaching plans, create teaching innovation, experiment on the use of the plans in real situation, and improve plans together (The Center for Mathematics Education Research, 2003). The basic concept of the lesson study is to see how to improve and develop lessons in real situations. This research was conducted based on an open approach to develop teaching plans so that students’ thinking skills could be enhanced.

2. Research objectives

2.1 Develop lesson plans by the lesson study approach for the 6th grade students social study subject based on the open approach innovation;

2.2 Develop the thinking skills of the 6th grade students.

2.3 Study students’ opinions towards the open approach innovation.

3. Methodology

This research was conducted using the lesson study approach adapted from the Japanese teacher profession development system so that there were only 5 steps for the target group, detailed as follows:

Step 1: Defining the Problem

Step 2: Planning the lesson

Step 3: Teaching the Lesson

Step 4: Evaluating the Lesson and Reflecting on its Effect

Step 5: Revising the Lesson

4. Target group

The target group were 43 students from Demonstration School of Khon Kaen University of 2004. academic year.

5. Research instruments

5.1 The lesson plans for social study subject on the topic of natural and social environments.

5.2 The reflecting form for learning activities by the subject teacher and the research team teachers.

5.3 The achievement evaluating form that emphasizes students’ thinking skills.

5.4 The form for recording students’ opinions toward the open approach.

6. Data collection

Data was collected following these steps:

6.1 Problems to be solved in the classrooms were designed.

6.2 Eleven open approach lesson plans were constructed together with research instrument plans.

6.3 The teacher taught the lesson according to the plans in the real classrooms with the research team observing the lessons and making notes for each lesson.

6.4 The teacher and observing researchers met to reflect the results of the learning activities based on the evaluating form for researchers and the work outcomes of the students.

6.5 The information obtained was used in improving all of the 11 lesson plans.

The 5 steps are written in the flow chart below:

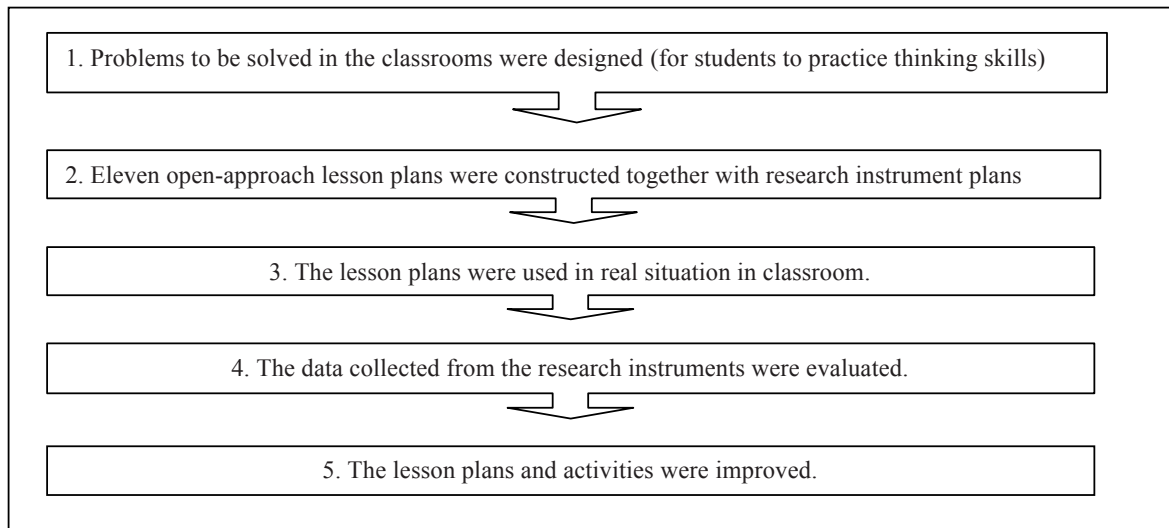


Figure 1. Data collection

7. Data Analysis

The researchers analyzed the quantitative and qualitative data based on the information obtained from the teaching. This was performed as a group and conclusions were drawn for further development and improvement of the learning activities. The statistics used in analysis were percentages which were calculated from a computer program.

8. Research Results

8.1 The lesson study-based lesson plans were obtained using the open approach innovation as follows:

The lesson planning process

Teaching preparation

Presentation with interesting activities that drew attention of students using pictures, realia, problem situations in order to stimulate students' thinking. The teacher posed open-ended questions.

Teaching

Teaching involved activities in which students developed their thinking skills in groups.

Conclusion

Conclusion was done using open-approach accompanied by instructional media and resources which were important in stimulating students' thinking according to the open-approach innovation.

8.2 Over 80% of the students passed the criteria of the achievement test in which thinking skills were emphasized. The mean score was 81.95%.

8.3 The students rated the learning activities using the open approach at the highest level ($X = 4.56$).

Table 1 Social study achievement .

Number of students	Full Scores	Max	Min	\bar{X}	S.D.	Percentage
43	30	30	18	24.585	2.46	81.95

Number of students 43 students. The students who scored the highest 30 points. Lowest score 18. S.D. value equal to 2.46. Students scoring average of 24.585 points. All of rating equal 81.95 % of the total score.

Table 2 Opinions of students

(5 means highest, 4 means high, 3 means moderate, 2 means low, and 1 means lowest)

Items	Average satisfaction score	SD
1. The learning activities were suitable to the subject content.	4.78	1.22
2. Students had a chance to carry out group activities and exchange knowledge with friends.	4.32	2.07
3. The teacher organized activities and situations that promoted expression and creative thinking.	4.68	2.23
4. The learning activities encouraged students to express their opinions in various aspects.	4.52	1.65
5. The teacher provides multiple learning media and resources which were associated to real life.	4.50	2.56
Total	4.56	1.95

9. Discussion

Learning activities according to the lesson study process were found efficient in developing lesson plans because: 1) this approach has undergone continuous development; 2) it retains the concept of learners' learning; 3) it emphasizes teaching development in the context of the present classroom; 4) it emphasizes co-learning within the teacher group; 5) the teachers who conducted research of the lessons plans see themselves as supporting development of pedagogy knowledge and at the same time developing their teaching profession .

The strong points of the lesson study approach included its gradual and continuing development, emphasizing changes in the classroom, which requires a certain innovation. This is integrated into the continuous development concept or the open approach innovation. The research team therefore developed learning activities with open-ended questions so that students could practice the thinking process. Students were provided with open-approach problem situations, where many possibilities exist to enable teachers to meet the needs, interest, or ability of each student's thinking method (Maitree Inprasidh , 2004). From implementing the learning activities for The 6th grade students social study subject with 5 steps of lesson-study lesson plans, we found the lesson plans were efficient because they had been developed by the research team following the 5 steps. However, the open approach activities require time for students to express their multiple opinions and innovative thinking. Time constraint under the time table of Khon Kaen University Demonstration School (Faculty of Education) made it impossible for students to reveal their thinking potential.

The research team therefore evaluated and reflected on the results of the lesson together before improving them. The improved plans should become appropriate to the time and be able to develop students' thinking

processes. By this we mean the scope of content should be lessened and learning activities reduced to enable students to take time in their thinking process.

10. Recommendations

1. Research on lessons of other subjects and other class levels should be conducted.
2. The improved plans should be tried out in the following academic year for optimal efficiency.

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